CLAIMS

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The current claim set of the application is presented below. Indications as to the status of the claims ("original", "currently amended", "cancelled", "new", etc.) appear in parentheses after the claim number.

1-57. (Canceled)

58. (Currently Amended) A polymeric composition comprising a polyurethane polymer derived from a polyisocyanate compound and a polyactive hydrogen compound, said polyurethane having an effective amount of covalently bound, antimicrobially active ammonium groups pendant to the polyurethane polymer in a terminal position and/or as a side chain along the polyurethane polymer backbone, wherein the antimicrobially active ammonium group is derived from a compound of the formula (I):

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wherein:
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m is 1 or 2;

p is 1;

and q = 1 or 2 provided that m+q = 3;

x is 6 to 20;

y is 2-8;

z is 2-10;

L is O, S, NR_5 or NH; where R_5 is C_{1-4} alkyl or benzyl;

each R₄ is independently C₁₋₄ alkyl, phenyl or C₆₋₈ aralkyl; and

 Q^{Θ} is halogen, alkyl sulfate, or carboxylate, sulfonate, sulfate, phosphonate or phosphate;

or

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an alkylaminoacrylate compound of the formula (II):

$$H_2C = C - C - O - R_5 - Z^{\oplus}Q^{\oplus}$$
(II)

wherein:

 R_1 is H or CH_3 ;

R₅ is a C₂₋₈ alkylene;

Q [⊖] is a halogen, alkyl sulfate, alkylsulfonate or carboxylate;

$$Z^{\oplus} \text{ is -N}^{\oplus}(R_4)_2R_3, \text{ -N}^{\oplus}R_4(R_3)_2,$$

wherein:

 R_3 is C_{8-20} alkyl, benzyl, or substituted benzyl; each R₄ is independently C₁₋₄ alkyl, phenyl or C₆₋₈ aralkyl; and R_6 is H or C_{1-4} alkyl.

- 59. (Previously Presented) The polymeric composition of claim 58, wherein the antimicrobial quaternary ammonium group is derived from a compound of formula (I) and is an alkylamidopropyldimethylhydroxyalkyl ammonium salt.
- 60. (Previously Presented) The polymeric composition of claim 58, wherein the polyurethane polymer comprises a cationic stabilizing moiety.
- 61. (Previously Presented) The polymeric composition of claim 58, wherein the at least one antimicrobial quaternary ammonium group is derived from an alkylaminoacrylate compound of the formula (II) and is located on an addition polymerized group and wherein said polyurethane polymer is derived from a monol vinylic compound and wherein the total equivalents of isocyanate used to form said polyurethane polymer is greater than the

equivalents of active hydrogen groups contributed by said polyactive hydrogen compound used to form said polyurethane polymer and said monol or polyol vinylic compound, and the addition polymerization group is formed by reaction of said monol or polyol vinylic compound with a vinylic compound having at least one antimicrobial quaternary ammonium group and wherein wherein said monol vinylic compound is selected from allyl alcohol, allyl amine, or a hydroxyalkyl acrylic compound of the formula:

wherein:

Y is O or NH;

 R_1 is H or CH_3 ;

 R_2 is a C_{2-8} alkylene;

or mixtures thereof.

- 62. (Previously Presented) The polymeric composition of claim 61, wherein the monol vinylic compound is hydroxyethylmethacrylate or hydroxyethylacrylate.
- 63. (Previously Presented) The polymeric composition of claim 58, wherein the alkylaminoacrylate compound of the formula (II) is selected from the group of N,N-dimethyl-N-alkyl-N-alkylmethacroyl ammonium salts such as N,N-dimethyl-N-dodecyl-N-ethylmethacroyl salt, N,N-dimethyl-N-hexadecyl-N-ethylmethacroyl salt, N,N-dimethyl-N-benzyl-N-lauroylmethacroyl salt, N,N-dimethyl-N-(2,4-dichlorobenzyl)-N-ethylmethacroyl salt, N,N-diethyl-N-hexadecyl-N-ethylmethacroyl salt, wherein the counter ion is selected from chloride, bromide, iodide, C1-4 alkyl sulfate, sulfate, or carboxylate.
- 64. (Previously Presented) An article comprising a substrate coated with the polymeric composition according to claim 58.

65. (Currently Amended) A polymeric composition comprising a polyurethane polymer derived from a polyisocyanate compound and a polyactive hydrogen compound, said polyurethane having an effective amount of covalently bound, antimicrobially active ammonium groups pendant to the polyurethane polymer in a terminal position and/or as a side chain along the polyurethane polymer backbone, wherein the antimicrobially active ammonium group is derived from a compound of the formula (III):

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$$(CH_3(CH_2)_x)_q N^{\oplus}(R^4)_m - (CH_2)_z LHQ^{\ominus}$$
 (III)

wherein:

m is 1 or 2;

q = 1 or 2 provided that m+q = 3;

x is 6 to 20;

z is 2-10;

L is O, S, NR^5 or NH; where R^5 is C_{1-4} alkyl or benzyl;

each R⁴ is independently C₁₋₄ alkyl, phenyl or C₆₋₈ aralkyl; and

 Q^{\ominus} is halogen, alkyl sulfate, or carboxylate, sulfonate, sulfate, phosphonate or phosphate.